

Title (en)

ESTIMATING HYDRAULIC FLOW IN A STEERING SYSTEM OF AN ARTICULATED VEHICLE

Title (de)

SCHÄTZUNG DES HYDRAULIKFLUSSES IN EINEM LENKSYSTEM EINES GELENKFAHRZEUGS

Title (fr)

ESTIMATION D'UN ÉCOULEMENT HYDRAULIQUE DANS UN SYSTÈME DE DIRECTION D'UN VÉHICULE ARTICULÉ

Publication

EP 4180305 A1 20230517 (EN)

Application

EP 22204267 A 20221027

Priority

GB 202116506 A 20211116

Abstract (en)

A method of estimating hydraulic flow in a steering system of an articulated vehicle (1), a controller (6) configured for the method and an articulated vehicle (1) are provided. The method comprises: a) sensing a yaw rate (θ) of the articulated vehicle (1); b) sensing a velocity (v) of the articulated vehicle (1); c) determining an estimate of a steering angle rate ($\dot{\delta}$) of the front part (2) of the articulated vehicle (1) using the sensed yaw rate (9) and the sensed velocity (v); d) determining an estimate of the hydraulic flow in the steering system of the articulated vehicle (1) using the estimate of the steering angle rate ($\dot{\delta}$) and one or more geometrical parameters of the steering system.

IPC 8 full level

B62D 12/00 (2006.01); **B62D 5/07** (2006.01); **B62D 15/02** (2006.01)

CPC (source: CN EP GB US)

B60R 16/0232 (2013.01 - CN); **B62D 5/06** (2013.01 - CN GB); **B62D 5/07** (2013.01 - EP); **B62D 12/00** (2013.01 - CN EP); **B62D 13/00** (2013.01 - GB); **B62D 15/021** (2013.01 - GB); **B62D 15/024** (2013.01 - GB US); **E02F 9/26** (2013.01 - US); **G01C 21/16** (2013.01 - US)

Citation (search report)

- [A] US 2001004953 A1 20010628 - TAKAI MASASHI [JP], et al
- [A] US 2014039753 A1 20140206 - SMITS ERIK [AU], et al

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

EP 4180305 A1 20230517; CN 116135608 A 20230519; GB 202116506 D0 20211229; GB 2612850 A 20230517; GB 2612850 B 20240410; US 2023150577 A1 20230518

DOCDB simple family (application)

EP 22204267 A 20221027; CN 202211341644 A 20221028; GB 202116506 A 20211116; US 202217985207 A 20221111